instrument I can command. But I have received the following observations from Mr. Mann, made at the observatory.

Cape Mean Time.	Approximate Places.	
	Right Ascension.	Declination.
d h m	h m s	° ′
1844, Dec. 24 8 20	19 43 30	38 18 ′ South
27 8 20	20 16 44	41 3
28 8 30	20 28 37	41 51
29 9 23	20 40 42	42 32

" My observations here are differences in altitude and azimuth from *α Gruis* and Fomalhaut.

" On the 24th the tail was about 7° long, and seemed to be parallel to the equator. On the 28th I measured the length, and found it to be 8°—brushy and slightly curved (sword shape) towards the north. Difference in azimuth of head and tail 1° 45′, the head being most southerly, at 4^h Cape sidereal time.

" January 1, the tail is parallel with the arc of a great circle joining α and β *Gruis*, and extends to midway between these stars, being seemingly about 9° in length. The head is bright, and the general outline more sharp and clear than the great comet of March, 1843."

III. Results of Observations of De Vico's Second Comet, and of the Great Comet of 1844–5, extracted from a letter to the Astronomer Royal, from Professor Schumacher.

1. Observations at Rome.

	Mean Time.	Right Ascension.	Declination.
	d h m s	h m s	° ′ ″
Feb. 25	11 15 39·2	11 44 2·20	+55 5 8·5
26	7 2 57·6	11 38 8·4	54 46 43·5

2. Observations at Paris.

	d h m s	° ′ ″	° ′ ″
March 6	12 36 33	158 28 18·6	+49 6 41·3
7	8 28 41	156 51 17·2	48 15 10·4
7	8 54 13	156 49 8·5	48 14 2·7
8	8 0 55	154 57 31·4	47 9 57·7

Mr. Faye has calculated from these observations the following elements.

Perihelion Passage, 1845, April 12·85112, Paris Mean Time.

Perihelion ... 191° 53′ 27″ ⎱ Mean Equinox, Jan. 1. Parallax and
☊ .... 346 59 41 ⎰   aberration *not* taken in account.
Inclination...... 56 45 44
Log. *q*...........0·1015077.   Motion direct.

The middle observation is represented to − 2·7″ in long. ⎱ Calcul.—observ.
                                        + 1·5   latit. ⎰

3. Observations made at Hamburg.

	d h m s	° ′ ″	° ′ ″
March 10	10 13 43·5	151 2 20·7	+44 36 25″
12	8 34 8·4	147 33 20·2	41 54 23·6
14	8 43 19·6	144 8 25·9	38 48 54·5

4. Observations made at Altona.

These observations are made with the meridian circle. I have put a small micrometer in the field of the telescope, which requires no illumination.

	d	h	m	s	°	′	″		°	′	″
March 12*	10	27	10		147	24	51	+	41	47	33
13	10	16	25		145	42	0		40	17	37
14†	10	5	54		144	2	33		38	43	37
15‡	9	55	36		142	26	34		37	5	44

March 16. The sky was covered.

March 18. I have to-day received a letter from Mr. Encke, which gives some more observations of the comet, recently observed at Naples.

	Berlin Mean Time.			Right Ascension.			Declination.		
	d	h	m	s	°	′	″	°	′	″
March 5		7	55	28·1	53	57	7·4	−9	48	36·6
8		7	30	39·6	55	29	47·4	−8	43	45·9
9		7	52	29·4	56	0	38·8	−8	22	11·4

From the observations, Feb. 7, Feb. 25, and March 5, he has calculated the following elements,—

Perihelion Passage, 1844, December 13·84846, Berlin Mean Time.

Perihelion ...... 295° 45′ 41″·7 ⎱ Mean equinox, Jan. 0.
☊ .... 118 21 6·6 ⎰
Inclination ...... 45 37 50·4
Log. q .... 9·395670.   Motion direct.

The middle observation is represented to − 26″·6 in R.A. ⎱ Calcul.—observ.
+ 14·3 in decl. ⎰

Since March 9, Mr. Encke has not seen this comet, even with his powerful telescope.

III. Elements of De Vico's Second Comet by the pupils of the Observatory at Naples, extracted from a letter to the Astronomer Royal, from E. Cooper, Esq. Communicated by the Astronomer Royal.

Perihelion Passage, 1845, April 21·398, Mean Time, Naples.

Longitude of perihelion .... 194° 22′ 20″
Longitude of ascending node........... 347 31 30
Inclination 55 10 34
Perihelion distance .... 1·23018
Motion direct.

IV. Observations of the great Comet of 1844-5, made at the Observatory of Trevandrum, by J. Caldecott, Esq., Director of the Observatory. Communicated in a letter to the Secretary.

* The great cold (− 14° Réaum.) and the east wind made the comet and stars tremulous.
† Good observations: the nucleus visible.
‡ Still better observations. The nucleus very distinct, of about 15″ diameter.